

CLAIMS

What is claimed is:

1. A security server for facsimile machines, which provides security information on users who are authorized to print document data transmitted from a transmitting facsimile machine to a receiving facsimile machine, to the receiving facsimile machine, the security server comprising:

a security information storage to store the security information;

a security server controller to receive the security information from the receiving facsimile machine and to update the received security information to the security server controller; and

an interface controlled by the security server controller to transmit the updated security information to the receiving facsimile machine, in response to a request issued by the receiving facsimile machine via a security communication line that is different from a communication line that transmits the document data from the transmitting facsimile machine to the receiving facsimile machine.

2. The security server of claim 1, wherein the security information includes at least a plurality of identifications and passwords of the authorized users.

3. The security server of claim 2, wherein the security server control unit receives user information input by a user attempting to print the document data, from the receiving facsimile machine, determines whether to authenticate the user based on a result of comparing the received user information with the security information stored in the security information storage unit, and informs the receiving facsimile machine of a result of the determination.

4. The security server of claim 2, wherein the security server control unit transmits the security information stored in the security information storage unit to the transmitting facsimile machine via the receiving facsimile machine, and the transmitting facsimile machine determines whether to authenticate the user or based on a result of comparing the user information received from the receiving facsimile machine with the received security information.

5. The security server of claim 2, wherein the security server control unit transmits the security information stored in the security information storage unit to the receiving facsimile machine, and the receiving facsimile machine determines whether to authenticate the unauthorized user based on a result of comparing user information input by a user attempting to print the document data, with the received security information.

6. A method of selectively printing document data using a security server for facsimile machines, which provides security information on users who are authorized to print document data transmitted from a transmitting facsimile machine to a receiving facsimile machine, to the receiving facsimile machine, the method comprising:

storing the security information;

transmitting the security information and the document data to the receiving facsimile machine;

receiving user information on a user attempting to print the document data;

authenticating the user based on a result of comparing the received user information with the security information; and

printing the document data if the user is authenticated,

wherein the security information is transmitted via a security communication line different from a communication line that transmits the document data from the transmitting facsimile machine to the receiving facsimile machine.

7. The method of claim 6, wherein the security information includes at least a plurality of identifications and passwords of the authorized users.

8. The method of claim 7, wherein the authenticating the user based on a result of comparing the received user information with the security information comprises:

providing the received user information to the security server for the facsimile machines; and

enabling the security server for the facsimile machines to determine whether to authenticate the unauthorized user based on a result of comparing the received user information with the security information and to inform the receiving facsimile machine of a result of the determination.

9. The method of claim 7, wherein the authenticating the user based on a result of comparing the received user information with the security information comprises:

providing the received user information to the transmitting facsimile machine; and

enabling the transmitting facsimile machine to determine whether to authenticate the unauthorized user or not based on a result of comparing the received user information with the security information and to inform the receiving facsimile machine of a result of the determination.

10. The method of claim 7, wherein the authenticating the user based on a result of comparing the received user information with the security information comprises:

providing the received user information to the receiving facsimile machine; and

enabling the receiving facsimile machine to determine whether to authenticate the unauthorized user or not based on a result of comparing the received user information with the security information and to inform the receiving facsimile machine of a result of the determination.

11. A computer-readable medium encoded with processing instructions implementing a method of selectively printing document data using a security server for facsimile machines, which provides security information on users who are authorized to print document data transmitted from a transmitting facsimile machine to a receiving facsimile machine, to the receiving facsimile machine, the method comprising:

storing the security information;

transmitting the security information and the document data to the receiving facsimile machine;

receiving user information on a user attempting to print the document data;

authenticating the user based on a result of comparing the received user information with the security information; and

printing the document data if the user is authenticated,

wherein the security information is transmitted via a security communication line different from a communication line that transmits the document data from the transmitting facsimile machine to the receiving facsimile machine.

12. The computer-readable medium encoded with processing instructions implementing a method of selectively printing document data method according to claim 11, wherein the authenticating the user based on a result of comparing the received user information with the security information comprises:

providing the received user information to the security server for the facsimile machine; and

enabling the security server for the facsimile machines to determine whether to authenticate the unauthorized user based on a result of comparing the received user information with the security information and to inform the receiving facsimile machine of a result of the determination.

13. The computer-readable medium encoded with processing instructions implementing a method of selectively printing document data method according to claim 11, wherein the authenticating the user based on a result of comparing the received user information with the security information comprises:

providing the received user information to the transmitting facsimile machine; and

enabling the transmitting facsimile machine to determine whether to authenticate the unauthorized user or not based on a result of comparing the received user information with the security information and to inform the receiving facsimile machine of a result of the determination.

14. The computer-readable medium encoded with processing instructions implementing a method of selectively printing document data method according to claim 11, wherein the authenticating the user based on a result of comparing the received user information with the security information comprises:

providing the received user information to the receiving facsimile machine; and

enabling the receiving facsimile machine to determine whether to authenticate the unauthorized user or not based on a result of comparing the received user information with the security information and to inform the receiving facsimile machine of a result of the determination.

15. A facsimile system for a plurality of facsimile machines, comprising:
 - a transmitting facsimile machine to accept inputs of document data and security information;
 - a receiving facsimile machine to receive the document data and the security information from the transmitting facsimile machine; and
 - wherein one of the security server, the transmitting facsimile machine, and the receiving facsimile machine compare the stored security information with user information to authenticate the user.

16. The facsimile system according to claim 15, further comprising:
 - a first communication line to transmit the user information; and
 - a second communication line to transmit the document data,
 - wherein upon an update of the security information, the transmitting facsimile machine transmits the updated security information to the receiving facsimile machine together with the document data.

17. A method of authenticating users for a facsimile system, comprising:
 - transmitting an identification of a receiving facsimile machine to receive document data;
 - opening a first communication channel between a transmitting facsimile machine and the receiving facsimile machine;
 - transmitting the document data on the first communication channel from the transmitting facsimile machine to the receiving facsimile machine;
 - transmitting information on a user from the receiving facsimile machine to a security server;
 - comparing the received user information with security information;
 - authenticating the user upon the user information matching the security information to provide an acknowledgement to the receiving facsimile machine; and
 - providing the document data to the user on receiving the acknowledgment.

18. The method according to claim 17, further comprising:
restoring the security information in the security server;
transmitting updated security information from the transmitting facsimile machine to the security server; and
transmitting stored security information requested by the receiving facsimile machine or the transmitting facsimile machine.

19. A facsimile machine to connect with a security server, comprising:
an operation panel to input user information and request document data;
a multiple line controller to control at least a first communication line to receive security information and a second communication line to receive the document data;
at least one of a receiving controller and a transmitting controller to control an input and output of data and information; and
a line interface to interface with the security server to forward the inputted user information.

20. The facsimile machine according to claim 19, further comprising:
at least one of a scanner to input document data and a printer to output document data;
a shared memory to temporarily store received document data; and
a memory to store a control program to control the facsimile machine.

21. The facsimile machine according to claim 19, wherein the user information is at least one of a user identification and a password, a user monitors operation of the facsimile machine at the operation panel, and the facsimile machine has a same communication protocol as the security server.